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| 10/062,799 | 01/31/2002 | Valene Skerpac | | 3395 |

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| EXAMINER |
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DAVIS, ZACHARY A

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2437

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05/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/062,799 | Applicant(s) SKERPAC, VALENE | |
| | Examiner Zachary A. Davis | Art Unit 2437 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,11,14,16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,11,14,16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 March 2009 has been entered.

2. By the above submission, Claims 1, 2, 4, 5, 11, 16, and 17 have been amended. Claims 10, 13, and 15 have been canceled. Claims 1, 2, 4-8, 11, 14, 16, and 17 are currently pending in the present application.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 2, 4-8, 11, 14, 16, and 17 have been considered but are moot in view of the new ground(s) of rejection.

4. It is noted that both Applicant's remarks and the affidavit of Aaron E. Rosenberg include several characterizations that suggest the previous grounds of rejection may have been misapprehended by Applicant. In particular, Applicant again asserts that the Examiner proposed that the combined system of Kanevsky et al, US Patent 5897616,

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and Kashani, US Patent Application Publication 2002/0165894, would require the spoken answer from the user to be exactly the same as the random question (see pages 12-13 of the present response) and Rosenberg also states that it was understood that the rejection alleged that the modification would require the spoken answer to be exactly the same as the random question (see affidavit, paragraph 11). However, the Examiner again notes that this was not, in fact, what was described in the previous rejections (see also pages 10-11 of the previous Office action, mailed 19 December 2008); rather, the Examiner previously described the application of the general teachings of Kashani to the system of Kanevsky, thus resulting in a system where both speech recognition and speaker recognition are performed on a response that is a repetition of the challenge phrase (see Kanevsky, column 6, line 35-column 7, line 12; and Kashani, paragraphs 0044, 0048, and 0118-0119, as previously cited).

Nevertheless, in light of further consideration of the references and the claims as amended, new grounds of rejection are set forth below.

5. The Examiner additionally notes that various statements and characterizations made in the affidavit of Rosenberg do not appear to have support in the cited portions of the references (see paragraph 5), do not appear to rely on any particular evidence and/or do not provide any explanation for the statements therein (see paragraphs 8-10, 12, and 13), or generally appear to misinterpret or misunderstand statements made in the previous Office action (see paragraphs 4 and 11). However, these statements and arguments are also moot in view of the new grounds of rejection as set forth below.

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6. The Examiner further notes that, contrary to Applicant's assertions, the argument that an answer does not exactly match a question (see, for example, page 11 of the present response) appears to rely on the narrower definition of the verb "to match" meaning "to be the same as, to be identical to"; however, the Examiner submits that a broader definition of "to match" that is appropriate to rely upon, namely the term meaning "to correspond to".

Claim Objections

7. The objection to Claim 11 for informalities is withdrawn in light of the amendments to the claim. It is further noted that the cancellation of Claim 15 makes moot the issue of whether Claim 17 is a substantial duplicate thereof.

8. Claims 1, 2, 4, 5, and 16 are objected to because of the following informalities:

In Claim 1, clarity could be increased by moving the phrase "in response to validation of said signal" in line 12 to earlier in the limitation where it would not be surrounded by other prepositional phrases. For example, the phrase could be moved to line 8, after "said controller" (set off with commas as appropriate).

Similarly, in Claim 2, clarity could be increased by moving the phrase "in response to validation of said first signal" in lines 7-8, for example, by inserting the phrase in line 6 to read "thereafter, in response to validation of said first signal, generating and delivering..."

Similarly, in Claim 4, clarity could be increased by moving the phrase “in response to said first signal” from line 10 in a similar manner.

Further, in Claim 4, lines 7-8, it appears that “of” should be inserted between “representative” and “the user”.

Further, in Claim 5, clarity could be increase by moving the phrase “in response to said first signal” from line 11, for example, to before “randomly generating” in line 9.

Additionally, in Claim 16, clarity could be increased by moving the phrase “in response to said first signal” from line 10 in a similar manner.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The rejection of Claims 10, 13, and 15 under 35 U.S.C. 112, second paragraph, as indefinite is moot in light of the cancellation of the claims.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1, 2, 4-7, 16, and 17 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Hattori, US Patent 6094632.

In reference to Claim 1, Hattori discloses a biometric security system including a station for receiving input information, which is representative of a user, from the user and generating a signal responsive thereto (column 9, lines 5-11, where an ID is input); a database having a plurality of words and language rules for randomly generating one-time challenge phrases (see column 9, lines 19-47; column 8, line 65-column 9, line 5, where "specified text" is provided to the user, which is a random phrase, see also column 9, lines 61-64); a database having biometric models of users (column 9, lines 5-20; column 11, lines 3-11, where a reference pattern of a registered speaker is stored; see also column 11, lines 17-42, and column 12, lines 14-54, noting the general references to plural speakers); and a controller that receives and validates the signal as representative of the user, where the controller communicates with the database that generates one-time challenge phrases for the user to speak exactly (column 8, line 65-column 9, line 5; column 9, lines 61-64), and communicates with the station to receive a spoken response and generate a second signal that represents the response (column 9, lines 5-11, the phrase is uttered by the unknown speaker), to validate voice information by speaker recognition (column 9, lines 21-28; column 11, lines 3-11) and verify voice information by speech recognition if the challenge phrase is matched exactly (column 9, lines 21-28; column 10, line 56-column 11, line 2), and to validate the spoken response

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to the challenge as representative of the user if the validation by speaker recognition and verification by speech recognition succeed (column 11, lines 12-16).

Claims 2 and 7 are directed to methods corresponding substantially to the system of Claim 1, and are rejected by a similar rationale, noting further that Hattori also discloses a private and personal challenge phrase (see column 8, line 65-column 9, line 5).

In reference to Claim 4, Hattori discloses a biometric security system including a station for receiving input information, which is representative of a user, from the user and generating a first signal responsive thereto (column 9, lines 5-11, where an ID is input); a database having a plurality of words and language rules for randomly generating one-time challenge phrases (see column 9, lines 19-47; column 8, line 65-column 9, line 5, where "specified text" is provided to the user, which is a random phrase, see also column 9, lines 61-64); a database storing a biometric model of a user (column 9, lines 5-20; column 11, lines 3-11, where a reference pattern of a registered speaker is stored); and a controller receiving and validating the first signal, where the controller further randomly generates and forwards a word phrase as a challenge for a user to speak exactly (column 8, line 65-column 9, line 5; column 9, lines 61-64), receives and compares with the challenge a spoken response to the challenge (column 9, lines 5-11), and verifies the response as exactly matching the challenge (column 9, lines 21-28; column 10, line 56-column 11, line 2), and where the controller additionally validates the response if the response matches the stored model (column 9, lines 21-

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28; column 11, lines 3-11), and the controller issues an authentication signal if both the response matches the phrase and the response is representative of the user (column 11, lines 12-16).

Claims 5 and 6 are directed to methods corresponding substantially to the system of Claim 4, and are rejected by a similar rationale, noting that Hattori discloses a multiplicity of users and stored biometric models (column 11, lines 17-42, and column 12, lines 14-54, noting the general references to plural speakers), and noting further that Hattori also discloses a private and personal challenge phrase (see column 8, line 65-column 9, line 5, for example).

In reference to Claims 16 and 17, Hattori discloses a speech biometric security system including a station for receiving input information, which is representative of a user, from the user and generating a signal responsive thereto (column 9, lines 5-11, where an ID is input); a database having a plurality of words and language rules for randomly generating one-time challenge phrases (see column 9, lines 19-47; column 8, line 65-column 9, line 5, where "specified text" is provided to the user, which is a random phrase, see also column 9, lines 61-64); a database having biometric models of users (column 9, lines 5-20; column 11, lines 3-11, where a reference pattern of a registered speaker is stored; see also column 11, lines 17-42, and column 12, lines 14-54, noting the general references to plural speakers); and a controller that receives and validates the signal as representative of the user, where the controller communicates with the database that generates one-time challenge phrases for the user to speak

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exactly (column 8, line 65-column 9, line 5; column 9, lines 61-64), and communicates with the station to receive a spoken response and generate a second signal that represents the response (column 9, lines 5-11), to process the response by speaker recognition and issue a first validation signal in response to a match between the spoken response and a stored biometric model (column 9, lines 21-28; column 11, lines 3-11) and simultaneously process the response by speech recognition and issue a second validation signal if the spoken response exactly matches the challenge phrase (column 9, lines 21-28; column 10, line 56-column 11, line 2), and issue a positive authentication signal in response to the first and second validation signals (column 11, lines 12-16).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 8, 11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hattori.

In reference to Claims 8 and 11, Hattori discloses everything as described above in reference to Claims 2 and 5, respectively. Hattori does not explicitly disclose establishing a session time out limit; however, Official notice is taken, and it has been

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admitted as prior art due to the inadequate traversal of such Official notice, that it is well known in the art to establish a session time out in order to require that authentications must take place within a specific time period, so that the probability of an imposter being able to take more sophisticated deceptive actions is decrease. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Hattori to include a time out, in order to increase security and to realize the above noted predictable result.

In reference to Claim 14, Hattori discloses everything as described above in reference to Claim 5. Hattori does not explicitly disclose encrypting or digitally signing the spoken response. However, Official notice is taken, and it has been admitted as prior art due to the lack of traversal of such Official notice, that it is well known in the art to encrypt data when privacy of that data is needed and/or if that data will be sent over an insecure channel. Further, Official notice is taken, and it has been admitted as prior art due to the lack of traversal of such Official notice, that it is well known in the art to use a digital signature when it is necessary to verify the integrity of data, i.e. to make sure that the data has not been altered. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Hattori to include encryption, in order to increase the privacy and security of the data, and to include a digital signature, in order to allow the integrity of the data to be verified.

Conclusion

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14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Gandhi et al, US Patent 5687287, discloses a speaker verification method that uses both speaker independent speech recognition and speaker dependent speaker verification.

b. Naik et al, US Patent 5548647, discloses speaker verification performed by verifying the speech of both a fixed text statement and a random word phrase.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571)272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zachary A Davis/
Examiner, Art Unit 2437